

**Decommissioning Experience
Formerly Utilized Sites Remedial Action Program (FUSRAP)
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In Fiscal Year (FY) 1998 Congress directed the U.S. Army Corps of Engineers (Corps) to execute the Department of Energy's (DOE) FUSRAP. This created overlapping missions for the Corps and the Nuclear Regulatory Commission (NRC) at some sites. In recognition of this overlap, our agencies have negotiated and implemented a Memorandum of Understanding (MOU) to coordinate activities affecting the health and safety of the public and common defense and security. Maintaining safety is paramount, and within that context, our agencies have been cooperating to control costs by minimizing dual regulatory efforts and identifying and implementing risk-informed management practices. Ongoing dialogue between our agencies to identify and resolve unique issues is important to the safe, economical, and timely cleanup of the licensed FUSRAP sites.

Background

Compared to the broad authorities given to the DOE under the Atomic Energy Act, the Corps' authority under FUSRAP is limited. In FY 1998 Congress tasked the Corps with cleaning up contaminated sites formerly used by DOE and its contractors in the pre-1974 time frame for activities related to development of the nation's early atomic energy program. Congress gave the Corps lead agency authority to select the necessary and appropriate response action and to apply the cleanup subject to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9601 *et seq.*) (CERCLA), and the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300) to the FUSRAP cleanup process. A yearly appropriation funds this work.

In 1999 DOE and the Corps entered into an MOU to define the roles and responsibilities between the two agencies. DOE continues to retain overall responsibility for the program, and identifies any new sites to be considered for addition, and the Corps is responsible for evaluating sites and executing cleanup activities. Congress also adds sites from time to time. By policy, DOE does not include in FUSRAP any sites with active licenses or sites that are eligible for cleanup under other programs. A few sites that are contrary to this policy have, however, been added by statute. Four of the FUSRAP sites are in some way related to licensed sites. One is contained within a licensed site (Combustion Engineering site, Windsor, Conn.), one overlaps a licensed site (St. Louis Downtown Site), and two are wholly or partially licensed (Shallow Land

Disposal Area Site, Parks Township, Penn. and the Maywood Site, Maywood, N.J.). This creates a situation where both CERCLA and the NRC decommissioning processes could be used to clean up the sites. This situation is further discussed under Challenges. Some sites, such as the Sylvania Corning Plant Site (Verizon) in Hicksville, N.Y., were formerly licensed, and current standards require additional cleanup, but this has not resulted in dual jurisdiction

The Program comprised 46 sites in FY 1998, with 21 sites in eight states remaining to be cleaned up. An additional five sites have been added to the program. The active sites range in size and scope from a few acres with one or two abandoned buildings, up to tens of acres with ongoing industrial processes, some for nearly 100 years. Some sites include densely populated neighborhoods where contaminated sediments were deposited around private residences and businesses as a result of flooding or other activities, while other sites are totally contained within secured industrial facilities. A limited number of sites are either entirely or partially owned by the DOE. The residuals from processing ore for uranium or thorium make up the majority of the contaminants on these sites, although each site is unique and other materials, including special nuclear material, source material and byproduct material, as well as naturally occurring radioactive material (NORM) and hazardous wastes under the Resource Conservation and Recovery Act (RCRA) are also present.

Accomplishments

The Corps has disposed of 1.3 million cubic meters of contaminated materials from FUSRAP sites in either NRC licensed or RCRA permitted offsite disposal facilities from FUSRAP sites since FY 1998; has completed remediation at five sites; is actively cleaning up eight more sites; and is studying the remaining sites to identify contaminated areas and evaluate cleanup alternatives. One remediated site owned by DOE, the Wayne Site in Wayne, N.J., was recently transferred to the local community for use as a recreation area. A remediated site near Buffalo, N.Y., the Ashland 2 site, is now part of an industrial park that will help to promote economic development. Stakeholders, including NRC and local communities, are kept informed of our progress and given opportunities to participate throughout the process. Consultation and coordination with the stakeholders at all stages of the cleanup process helps to ensure that our activities are compatible with the plans of local communities.

In addition to smoothly negotiating an MOU between our agencies for coordinating activities on licensed FUSRAP sites, cooperation between the NRC Staff and the Corps has enabled use of a select few RCRA hazardous waste facilities for disposal of the large volumes of soils contaminated with low-activity ore residuals found not only on FUSRAP sites but also on some Superfund federal lead sites managed by the Corps for the U.S. Environmental Protection Agency. Adding two RCRA hazardous waste facilities as disposal options for the majority of FUSRAP materials created competition among disposal sites, significantly reduced disposal costs, and assured adequate disposal capacity without compromising safety. This helped the Corps make

significantly more cleanup progress than would otherwise have been possible in the same timeframe within constrained budgets.

Challenges

The NRC, EPA, and multiple state regulatory agencies may all be stakeholders for any given licensed FUSRAP site. Our challenge is to identify and understand each stakeholder's requirements and to determine how to address these requirements within the Corps' limited cleanup authority under FUSRAP. This is especially challenging where an NRC license dominates the regulatory environment at a FUSRAP site. The challenge is to ensure the health and safety of the public, protect the environment, minimize dual regulation and adhere to license requirements while cleaning up within a limited budget.

Under the terms of the Corps' MOU with the NRC, the licensee and the NRC step back from their normal roles in the decommissioning process to allow the Corps to proceed with its CERCLA cleanup, while satisfying the NRC health, safety, and security responsibilities. Though the Corps is exempt from actual licensing under CERCLA § 121(e), we must meet substantive requirements of the applicable or relevant and appropriate requirements that establish the cleanup standard for the site. This process helps to minimize dual regulation while also ensuring safety.

As earlier discussed, the Corps depends on limited congressional appropriations to fund FUSRAP activities. We must, therefore, maximize use of taxpayer dollars by finding safe, effective and efficient ways to execute our mission. A recent report by the National Academies, *Improving the Regulation and Management of Low-Activity Radioactive Wastes*, March 2006, addresses regulatory processes for safe and efficient disposal of low-activity waste. The overall intent of the Academy's recommendations is regulating disposal of low-activity waste based on its health and safety characteristics, such as activity or toxicity, and not its pedigree, such as whether produced by one industrial process or another. The Academy recommends reform of the current practice of regulating similar wastes generated by different industries under multiple legal structures having similar safety results but widely differing costs and administrative burdens. The processes recommended by the Academy can all be implemented by cooperating agencies within the current regulatory structure.

I would like to endorse two of the Academy's five recommendations as guiding principles for the Corps and the NRC in working on FUSRAP. The first is the recommendation to use risk informed regulation of low-activity material through integrated strategies. The Corps values the NRC's willingness to consult with us on difficult issues and to consider alternative management options, given that the Corps is not a licensee, and recognizing that our unique relationship may require innovative solutions. The complexities of the history of some of the FUSRAP sites when coupled with the complexity of the laws and regulations controlling management of radioactive materials requires continued cooperation between our agencies to ensure our joint efforts

are safe, legally compliant, and result in real increased protection of the public at the best possible cost.

Although I think that all the Academy report recommendations are valuable, the second one that I would like to highlight today is recommendation three that says “government agencies should continue to explore ways to improve their efforts to gather knowledge and opinions from stakeholders, particularly the affected and interested public, when making LAW (low-activity waste) risk management decisions.” I completely agree that the “public stakeholders play a central role in a risk-informed decision process.” The public places a lot of trust in federal and state agencies to do the right things when protecting their health and safety and protecting the environment. Our challenge as federal agencies is to interact in such a way that reinforces the public trust. This requires federal and state agencies working together and engaging in healthy discussion geared toward finding real solutions that involve the public and meet their expectations. A part of this is making sure that we communicate with the public in ways that help them to understand the risk imposed by these sites and our measures to help control those risks. The Corps uses many methods to involve the public and other stakeholders in the cleanup process. We commonly employ a technical planning process that helps us to quickly identify the significant interests and concerns of the regulators, land owners, and local governments. We regularly keep stakeholders informed of our progress through a yearly programmatic newsletter and quarterly site specific newsletters and notices. We also hold public meetings and/or information sessions at key points throughout the cleanup process. We have also sponsored community training sessions to help people understand site risks and the ways in which they can participate in opportunities to inform our decision making. The Corps takes the CERCLA requirement for public involvement and information sharing very seriously.

Although the NRC and the Corps have similar mandates to protect the health and safety of the public under the Atomic Energy Act, or FUSRAP/CERCLA, respectively, the Corps executes cleanup and disposal, and has an additional responsibility to recover its costs of execution. Accordingly, the Corps seeks to recover costs, under CERCLA, from parties responsible for contributing to the contamination cleaned up under FUSRAP. Once the Corps identifies responsible parties, the Department of Justice and the Corps seek a settlement or other appropriate legal remedy, including participating in the cleanup. This is always a sensitive matter and requires thoughtful Program execution. Preparing for settlement or litigation adds a time consuming dimension to FUSRAP projects, which doesn’t exist in NRC decommissioning.

Despite these challenges I believe that with the continued support of the NRC and the other involved federal and state agencies we will continue to make progress toward remediating all of the FUSRAP sites in a safe and effective manner.

I would like to end by noting that the Corps regularly uses NRC guidance to implement FUSRAP. The revised NUREG-1757, *Consolidated Decommissioning Guidance, Decommissioning Process for Materials Licensees, Final Report*, published in September 2006 which includes guidance on intentional blending, will be particularly

helpful in safely managing contaminated soils in a cost effective manner. The Corps also looks forward to publication of the procedure for reviewing 10 CFR § 20.2002 requests as referenced in SECY-06-0056, *Improving the Transparency in the 20.2002 Process*. Even though the Corps executes FUSRAP under the CERCLA permit exemption and is not a licensee, we look forward to continuing to work with the NRC staff to find ways to use the regulatory flexibilities available to licensees.